

Abstract

A lithium-nickel complex oxide material for active material for positive electrode of a lithium secondary battery is provided and expressed by the general formula $\text{Li}_x(\text{Ni}_{1-y}\text{Co}_y)_{1-z}\text{M}_z\text{O}_2$ (where, $0.98 \leq x \leq 1.10$, $0.05 \leq y \leq 0.4$, $0.01 \leq z \leq 0.2$, M = at least one element selected from the group of Al, Zn, Ti and Mg), wherein according to Rietveld analysis, the Li site occupancy rate for the Li site in the crystal is 98% or greater, and the average particle size of the spherical secondary particles is 5 μm to 15 μm , and wherein the difference in specific surface area between before and after the washing process is 1.0 m^2/g or less.